

IN THE CLAIMS:

Please cancel claims 6, and 7, and amend claims 1, 3 and 8 and add new claim 10 as follows:

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1. (Currently Amended) A ball screw with cooling means comprising:
 - a. a screw bolt having a first spirally threaded groove formed around the outer surface thereof;
 - b. a hollow screw nut to be sleeved over said screw bolt ~~also~~ having ~~another~~ a second spirally threaded groove corresponding to said ~~former~~ first spirally threaded groove being formed around the inner surface thereof;
 - c. a plurality of rolling balls interposed between said ~~two~~ first and second grooves so that ~~causing~~ said screw bolt and said screw nut are able to rotate with each other; and
 - d. an outer cover covering said screw nut such that a cavity being formed therebetween for a cooling agent to flow through thereby reducing the temperature of said screw nut.
 2. (Original) The ball screw of claim 1, wherein several leak proof elements are provided between said screw nut and said outer cover for preventing leakage of the cooling agent.
 3. (Currently Amended) The ball screw of claim 2, wherein said leak proof ~~element~~ is an O-ring elements are O-rings.
 4. (Original) The ball screw of claim 1, wherein an enlarged portion of said cavity is made between said screw nut and said outer cover.
 5. (Original) The ball screw of claim 4, wherein said enlarged portion is formed by paring a part of said screw nut into a planar shape.
 6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) ~~The A ball screw of claim 7,~~ with cooling means comprising:

a. a screw bolt having a first spirally threaded groove formed around the outer surface thereof;

b. a hollow screw nut to be sleeved over said screw bolt having a second spirally threaded groove corresponding to said first spirally threaded groove being formed around the inner surface thereof;

c. a plurality of rolling balls interposed between said first and second grooves so that said screw bolt and said screw nut are able to rotate with each other; and

d. an outer cover covering said screw nut such that a cavity being formed therebetween for a cooling agent to flow through thereby reducing the temperature of said screw nut and wherein a guiding tube for guiding flow of the cooling agent is installed in said cavity and wherein a heat conducting glue is filled between said guiding tube and said screw nut.

9. (Original) The ball screw of claim 1, wherein an entrance pipe with an opening and an exit pipe with an opening are formed in said screw nut for circulation of the cooling agent.

10. (New) The ball screw of claim 8, wherein an entrance pipe with an opening and an exit pipe with an opening are formed in said screw nut for circulation of the cooling agent.
